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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,919	09/20/2005	Daisuke Kuroda	277094US6PCT	7952
22850	7590	08/03/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SCHWARTZ, JORDAN MARC	
			ART UNIT 2873	PAPER NUMBER
			NOTIFICATION DATE 08/03/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/549,919

Applicant(s)

KURODA ET AL.

Examiner

Jordan M. Schwartz

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/05,6/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The abstract of the disclosure is objected to because it is too long. Specifically, the abstract cannot exceed 150 words and 15 lines in length and it therefore needs be shortened in length. Correction is required. See MPEP 37 CFR 1.72.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims 1 and 9 (and dependent claims 2-8) are objected to because of the following informalities:

With respect to claims 1 and 9, claim 1, lines 7 and 14, and claim 9, lines 13 and 20, the claimed "in the order" should be corrected to "in this order" to provide additional clarity. Appropriate correction is required.

Claims 3 and 4 (and their respective dependent claims) are objected to for the following reasons. Since the intended meaning could be determined from the specification and the Figures, 112 rejections were not made but instead these lack of clarity issues are being raised in the following claim objections.

With respect to claims 3 and 4, the parentheses within the claims creates a lack of clarity. Specifically, it is not clear if what is set forth in the parentheses are intended as limitations or not. It is assumed that they are intended as limitations and therefore the parentheses should be removed for clarity. By way of example, claim 3, line 12, "the first lens group (VdAv is determined..." should be corrected to, "the first lens group in which VdAv is determined..." to provide additional clarity.

Claim Rejections - 35 USC § 112

Claims 3-4 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for VdAv as "the average of the Abbe numbers of the lenses having positive refractive power subsequent to and including the second lens in the first lens group" (the assumed meaning), does not reasonably provide enablement for VdAv as "the average of the Abbe numbers of the lenses having positive refractive power subsequent to the second lens in the first lens group". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, in the specification, page 39, Table 13, the values for VdAv -VdL1 are computed. For all of these computed values VdAv is based on the average of the Abbe numbers of the lenses having positive refractive power subsequent to and including the second lens in the first lens group. In fact, in Example 1, there are no lenses subsequent to the second lens in the first lens group. In example 1, VdAv is

Art Unit: 2873

therefore based on only the second lens in the first lens group. Therefore, for purposes of examination the assumed meaning is as set forth above.

Claims 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 5-8, the claimed "the third lens group has an iris aperture and is fixed upon zooming" renders the claim vague and indefinite. Specifically, it is not clear if applicant is claiming that the third lens group is fixed upon zooming or the iris aperture is fixed upon zooming or both are fixed and the lack of clarity renders the claims vague and indefinite. For purposes of examination the assumed meaning is "the third lens group has an iris aperture and the third lens group and iris aperture are both fixed upon zooming".

With respect to claim 9, lines 2-4, the claimed "for varying a magnification power by changing distances between the lens groups" renders the claim vague and indefinite. Specifically, it is not clear if the intended meaning is "by changing distances between all of the lens groups" or if the intended meaning is "by changing distances between at least some of the lens groups" (with the latter being the assumed meaning) and the lack of clarity renders the claim vague and indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to

Art Unit: 2873

be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mihara publication number 2006/0158742 in view of Nakayama patent number 5,847,882.

With respect to claims 1 and 5-9, Mihara discloses the limitations therein including the following: a zoom lens (abstract) comprising a first lens group fixed for zooming having a positive refractive power (abstract, Figures 24-25, Eighth Embodiment, "G1", paragraphs 365 and 371); a second lens group having a negative refractive power (abstract, Figures 24-25, Eighth Embodiment, "G2", paragraph 367); a third lens group having a positive refractive power (abstract, Figures 24-25, Eighth Embodiment, "G3", paragraph 368); a fourth lens group having a negative refractive power (abstract, Figures 24-25, Eighth Embodiment, "G4", paragraph 369); a fifth lens group having a positive refractive power (abstract, Figures 24-25, Eighth Embodiment, "G5"); the second lens group moving for zooming (paragraph 371); the first lens group comprising a single lens having a negative refractive power (Figure 24, Eighth Embodiment, paragraph 365, L1₁); a reflective member to bend the optical path through 90 degrees (Figure 24, Eighth Embodiment, paragraphs 365-366, R1); and at least a second lens having positive refractive power (Figure 24, Eighth Embodiment, paragraph 365, L1₂); the third lens group having an iris aperture (Figure 24, Eighth Embodiment, aperture "S"); and an image sensing device to convert an optical image into an electrical signal (paragraphs 0002 and 0009).

With respect to claims 1 and 5-9, Mihara discloses as is set forth above including disclosing the zoom lens system of plus minus plus minus plus construction having only two lens groups moving for zooming and having the fourth lens group of a single lens (Figure 24, Eighth Embodiment, paragraph 371) but discloses the second and third lens groups moving for zooming with the fourth lens group fixed (Figure 24, Eighth Embodiment, paragraph 371) and not the second and fourth lens groups moving for zooming with the third lens group fixed as claimed. Nakayama teaches that in a zoom lens system of plus minus plus minus plus construction (abstract, Figures 1 and 2) and having only two lens groups moving for zooming and with a fourth lens group of a single lens only (abstract, Figures 1 and 2) that it is desirable to have the second and fourth lens groups moving for zooming with the third lens group fixed for the purpose of providing a zoom lens system of a simplified zooming means and improved space efficiency (column 2, lines 31-52, column 5, lines 40-51). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have in the zoom lens system of Mihara, the second and fourth lens groups moving for zooming with the third lens group fixed since Nakayama teaches that in a zoom lens system of similar structure to that of Mihara, it is desirable to have the second and fourth lens groups moving for zooming with the third lens group fixed for the purpose of providing a zoom lens system of simplified zooming and of improved space efficiency.

With respect to claims 2-4, Mihara and Nakayama disclose and teach as set forth above and Mihara further discloses the satisfaction of the first condition

Art Unit: 2873

of claim 2 (Eighth Embodiment, $D1/Fw = 3.28$); and the satisfaction of the first condition of claims 3 and 4 (Eighth Embodiment, $NdL1 = 1.81$). Mihara discloses as is set forth above and further discloses $D1/Ft = 1.1$ (Eighth Embodiment) i.e. just outside of the claimed range of " < 1.0 " and discloses $VdAv - VdL1 = 14$ (Eighth Embodiment) i.e. just outside of the claimed range of " > 15 ". It has been held that where the claimed ranges and prior art do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, a prima facie case of obviousness exists. Titanium Metals Corporation of America, 227 USPQ 773 (Fed Cir. 1985). Since these differences in overlapping ranges are so minimal, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the lens system of Mihara as modified by Nakayama as satisfying the $D1/Ft$ and $VdAv - VdL1$ conditions since the claimed ranges closely approximate the suggested values taught by Mihara.

Examiner's Comments

Nanjo publication number 2005/0275735 is being cited herein as a reference that would have read on a number of the above rejected claims, however, it does not qualify as prior art based upon its date.

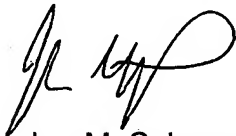
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M. Schwartz whose telephone number is (571) 272-2337. The examiner can normally be reached on Monday to Friday (8:30 to 4:30).

Art Unit: 2873

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached at (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jordan M. Schwartz
Primary Examiner
Art Unit 2873
July 30, 2007